

REMARKS

I. Introduction

In response to the Office Action dated January 28, 2005, Applicants have amended claim 1 so as to further clarify the present invention. Support for this amendment can be found, for example, in Fig. 2A and its corresponding sections of the specification. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art references.

II. The Rejection Of The Claims Under 35 U.S.C. § 102

Claims 1-2 and 6 are rejected under 35 U.S.C. § 102(a) as being anticipated by Applicants' admitted prior art ("AAPA"). Applicants respectfully request reconsideration of this rejection for at least the following reasons.

Claim 1, as amended, recites that in the third step, the interconnect groove is formed in the third insulating film with the second insulating film being exposed at the bottom of the aperture.

In accordance with one exemplary embodiment of the present invention, the reflection-prevention film 16 and the second interlevel insulating film 15 are patterned so as to form the interconnect groove 15b from the upper surface of the reflection-prevention film 16. Specifically, a part of the etching stopper layer 14 *exposed* under the aperture 15a is etched in a manner that the upper portion of the lower layer interconnect 13 is *not* exposed. As a result, the lower layer interconnect is advantageously protected from damage caused during etching while

forming the interconnect groove, thereby improving the reliability and production yield of the multilayer interconnect (see, e.g., page 13, line 15 to page 14, line 3 of the specification).

In contrast, as illustrated in Fig. 6B of Applicants' drawings, the lower layer interconnect 103 and the etching stopper layer 104 of the AAPA located under the aperture 105a are *protected* by the second reflection-prevention film 108 when the interconnect groove 105b is formed. That is, the etch stopper layer 104 of the AAPA is *not* exposed at the bottom of the aperture 105a during the formation of the interconnect groove 105b in the second interlevel insulating film 105. Thus, at a minimum, the AAPA does not disclose or suggest forming the interconnect groove in the alleged third insulating film with the alleged second insulating film being exposed at the bottom of the aperture.

Accordingly, as anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference, *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), and at a minimum, the AAPA fails to disclose or suggest the foregoing claim elements, it is clear that the AAPA does not anticipate claim 1, or any of the claims dependent thereon.

III. All Dependent Claims Are Allowable Because The Independent Claims From Which They Depend Are Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as independent claim 1 is patentable for

the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also in condition for allowance.

IV. Conclusion

Accordingly, it is urged that the application is in condition for allowance, an indication of which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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